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AUTHOR Kaufman, Phillip
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ABSTRACT

Factors that have contributed to the increase in college enrollment since 1978 and the possible impact of these factors on future college enrollments were analyzed using data from the Higher Education General Information Survey and the Current Population Survey. During 1978-1984, enrollment increased despite declines in the 18- to 24-year-old population. While the major factor in the enrollment increases since 1978 has been higher enrollment rates for 18- to 24-year-olds, another factor has been increased enrollment by women, particularly those 25 years old and older. Implications for the future include the fact that enrollment rates for women 25 years old and older may decline as more women attend college prior to the age of 25. In addition, the enrollment rate for 18- to 24-year-olds may decline as higher proportions of college-age persons come from groups with traditionally lower college-going rates. Therefore, while enrollments have remained high in the early 1980s, a decline in the late 1980s and the early 1990s may occur. Trends in enrollment are reported by gender, age, age by gender, and race/ethnicity (White, Black, and Hispanic). Information on college enrollment estimation and the reliability of estimates is appended. (SW)

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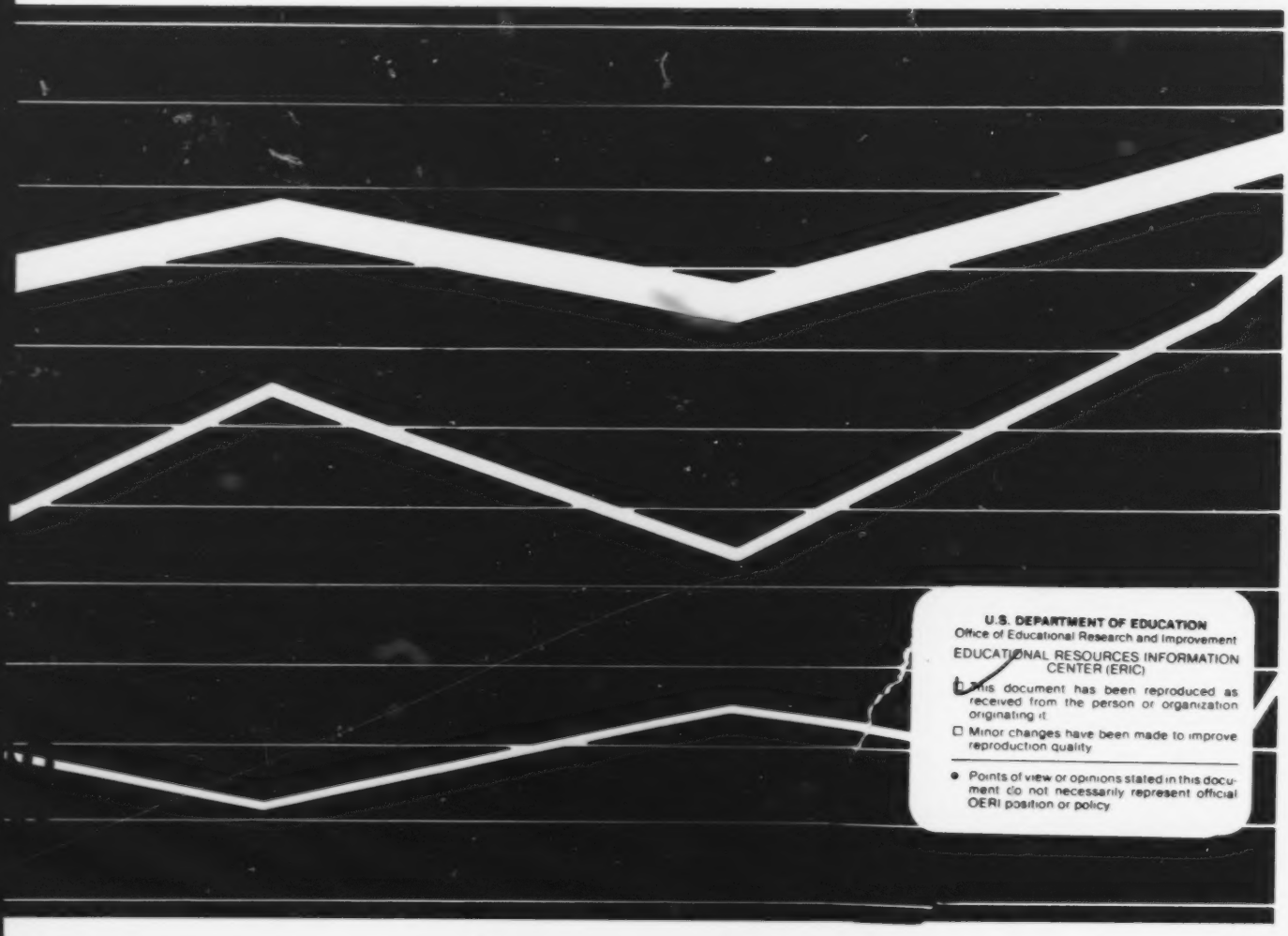
Center for Education Statistics

Growth in Higher Education Enrollment: 1978 to 1985



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Center for Education Statistics

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Growth in Higher Education Enrollment: 1978 to 1985

by Phillip Kaufman

Overview

College education in the United States has grown considerably in the past forty years. Since 1950, enrollment has increased by over 300 percent, while the number of institutions has increased almost 80 percent (U.S. Department of Education, 1986b). During this period the nation's student body has grown increasingly more diverse, with greater numbers of women, minorities, part-time students, and older adults enrolling in colleges and universities.

At the end of the 1970's, however, some analysts saw in the projected decline of the 18- to 24-year-old population evidence for college enrollment declines in the 1980's. As of 1985, these overall enrollment declines have not occurred, and, in fact, college enrollment increased in the early 1980's. This paper examines the factors which have contributed to the increase in college enrollment since 1978, and discusses the possible impact of these factors on future levels of college enrollment. The major findings include:

Trends in enrollment, 1978-1985

- Enrollment has increased despite declines in the 18- to 24-year-old population.
- The major factor in the enrollment increases since 1978 has been higher enrollment rates for 18- to 24-year-olds.
- The other factor contributing to increases in higher education enrollment in recent years has been increased enrollment by women, particularly those 25 and older.

Implications

- The two factors which kept enrollment high in the late 1970's and early 1980's may be transitory.
- Enrollment rates for women 25 and older may decline as more women attend college prior to the age of 25.
- The enrollment rate for 18- to 24-year-olds may decline as higher proportions of college-age persons come from groups with traditionally lower college-going rates.
- Therefore, while enrollments have remained high in the early 1980's, a decline in the late 1980's and early 1990's may occur.

Data

The data for this analysis come from two sources: the Department of Education's Higher Education General Information Survey (HEGIS) and the Bureau of the Census' Current Population Survey (CPS). In this paper, the data source(s) used are indicated in parentheses at the beginning of each section. The analysis scheme for this paper is based, in part, on a report prepared for the Center for Statistics by Carol Frances (1986) of Washington Resources Inc.

Although both CPS and HEGIS publish October enrollment data, HEGIS obtains its data from reports submitted by the colleges and universities, while CPS obtains enrollment data as part of a periodic sample survey of households. Therefore, HEGIS is a census of its population while CPS is a sample survey.[1]

CPS collects data on individual students which makes detailed analyses about student characteristics possible. For example, CPS is the only source of national data on college enrollment by age.[2]

Trends in Enrollment, 1978-1985

Throughout the last decade, many analysts and college administrators expressed concern about enrollment declines in the 1980's. Pointing to the declining population of 18- to 24-year-olds, some analysts predicted decreases of 15 to 20 percent in total enrollment between 1981 and 1995 (Crossland, 1981; Carnegie Council on Policy Studies in Higher Education, 1980).[3] Contrary to the predictions of these analysts, however, while the 18- to 24-year-old population did shrink 1.9 percent between 1978 and 1985, and the 18- to 21-year-old population declined 8.4 percent, total enrollment in higher education increased over 12 percent in that period.

Patterns in college enrollment can be analysed from several perspectives. For example, the total number of 18-year-old women students can be shown as the

proportion of all college students or as the proportion of all 18-year-old women. Each comparison tells a slightly different story, and has its own importance. One yields information about the current mix of students on college campuses, while the other indicates the college-going rate for 18-year-old women.

The following sections use both types of comparisons to discuss several factors which have contributed to trends in college enrollment since 1978. Furthermore, in discussing these factors, this paper divides recent trends in college enrollment into two periods, 1978 to 1983 and 1983 to 1985. During the first period, enrollment rose each year and in the second period, total enrollment declined in 1984 and then increased in 1985.[4]

Gender (CPS). Women as a proportion of all college students[5] steadily grew through the late 1970's and early 1980's.

- Women as a proportion of all college students rose from 49.9 percent in 1978 to 52.9 percent in 1985.

- Women accounted for 63.7 percent of the increase in college attendance between 1978 and 1983.

- Between 1983 and 1985 the number of men enrolled in college decreased 1.7 percent, while the number of women continued to increase.

The increase in women students was the result of a rising proportion of all women 14 and older attending college, from 6.3 to 6.6 percent.[6] At the same time, men's college-going rate was declining, from 7.0 to 6.7. The gap between men's and women's college-going rates had disappeared by 1985.

Age (CPS). Between 1978 and 1985, the number of college students 25 and older increased considerably (Figure 1). This increase was due to growth in the age group, as the large baby-boom cohort grew older, rather than a change in participation rates for persons over 25.

- The number of students 25 and older grew by 22.0 percent between 1978 and 1985, while the number of students 35 and older grew by 27.5 percent.

- Over the 1978-85 period, the college-going rates for each of the age groups over 24 remained constant—about 9 percent for 25- to 29-year-olds, 6 percent for 30- to 34-year-olds, and about 1.5 percent of those 35 and over.

For those 18 to 21, enrollment rates increased between 1978 and 1983. Over that time period the number of 20- to 21-year-old students increased and the number of 18- to 19-year-old students was relatively stable. The population age 18 to 21 *shrank* by almost 9 percent between 1978 and 1985.

- The number of 18- to 21-year-olds enrolled in college increased by 6.3 percent between 1978 and 1985 (Table 1) (U.S. Department of Commerce, 1986).

What some analysts could not foresee in making their predictions of decline in the late 1970's was that the proportion of 18- to 21-year-olds attending college would increase substantially, from 31.9 percent in 1978 to 37.1 percent in 1985. If college-going rates had remained in 1985 what they were in 1978, the decrease in the 18- to 21-year-old population would have resulted in a decrease of more than 700,000 students.

- The increase in the participation rate for 18- to 21-year-olds contributed to college enrollment being almost 330,000 higher in 1985 than it was in 1978.

This increase in college-going rates more than compensated for the reduced size of the 18- to 21-year-old applicant pool.

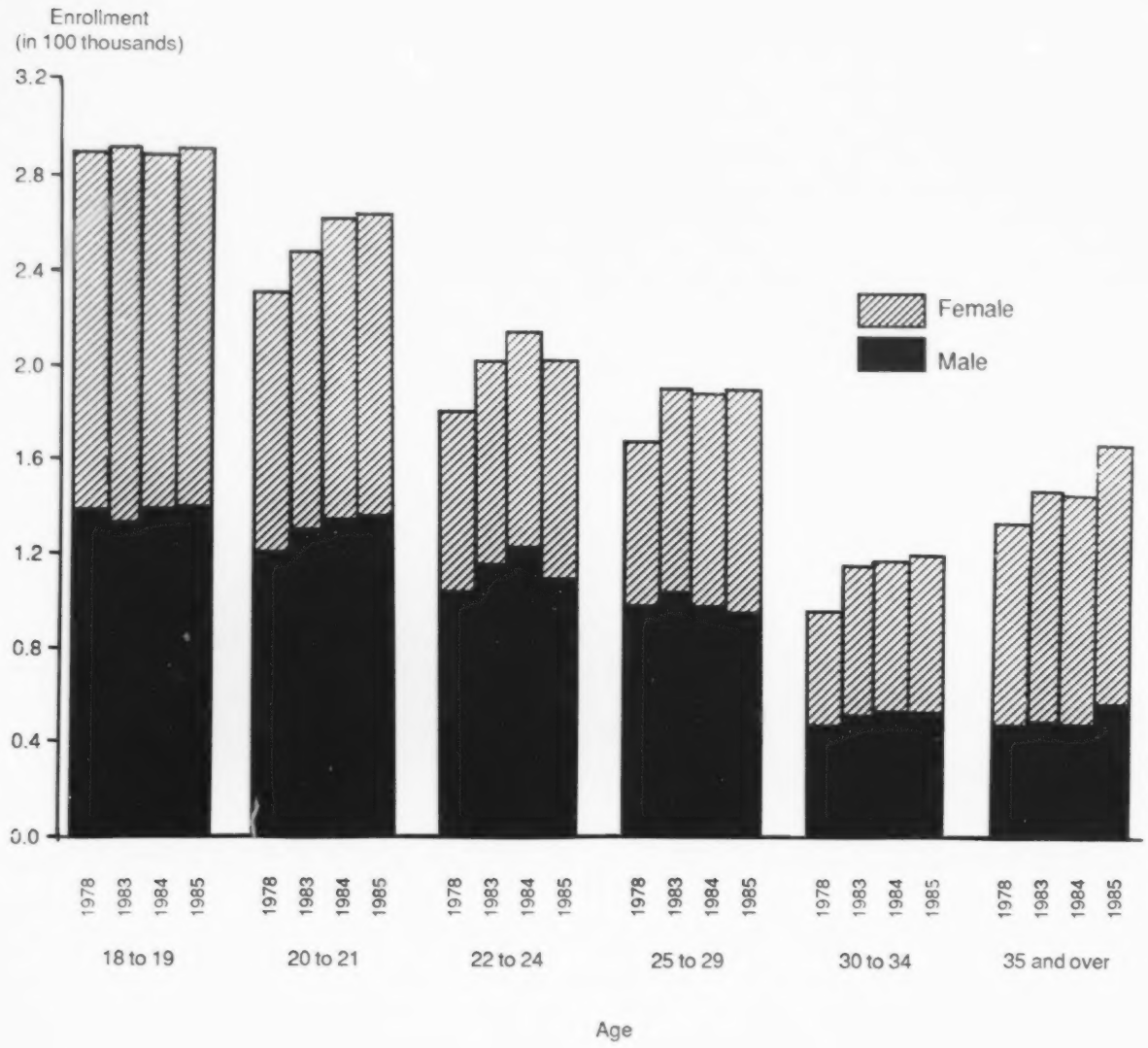
Age by gender. The increase in college-going rates for 18- to 21-year-olds was greater for women than for men.

- The participation rate for men age 18 to 21 increased 4.8 percentage points, from 32.9 percent to 37.7 percent between 1978 and 1985.

- Women, 18 to 21, increased their college-going rate by 6.4 percentage points (31.1 percent to 37.5 percent).

- If the college-going rate in 1985 for women, age 18 to 21, had been what it was in 1978, college enrollment of 18- to 21-year-olds would have been 490,000 less than it actually was in 1985.

FIGURE 1 -- Higher education enrollment, by gender and age: 1978 to 1985



SOURCE: U.S. Department of Commerce, Bureau of the Census, *School Enrollment -- Social and Economic Characteristics of Students: October 1984* and public use data tape, October 1985 School Enrollment Supplement to Current Population Survey.

Table 1

College enrollment and total population by age category: 1978 to 1985

Age and sex	1978	1979	1980	1981	1982	1983	1984	1985
	(In thousands)							
Population								
18 to 21	16,245	16,835	16,813	16,701	16,533	15,858	15,387	14,883
18 to 24	27,647	29,028	29,259	29,277	29,083	28,580	28,031	27,122
25 and older	123,774	130,613	133,309	135,958	138,911	138,894	141,755	144,389
College enrollment								
Both sexes								
14 and older	11,141	11,380	11,387	12,127	12,308	12,320	12,304	12,524
18 to 21	5,197	5,197	5,356	5,589	5,618	5,435	5,464	5,524
18 to 24	6,995	6,991	7,226	7,575	7,678	7,477	7,591	7,537
25 and older	3,872	4,077	3,910	4,321	4,377	4,583	4,460	4,724
Male								
14 and older	5,580	5,480	5,430	5,825	5,899	6,010	5,989	5,906
18 to 21	2,593	2,533	2,615	2,689	2,722	2,650	2,710	2,740
18 to 24	3,621	3,508	3,604	3,833	3,837	3,815	3,929	3,827
25 and older	1,853	1,843	1,730	1,895	1,950	2,082	1,968	2,025
Female								
14 and older	5,559	5,900	5,957	6,303	6,410	6,310	6,315	6,618
18 to 21	2,604	2,664	2,741	2,900	2,896	2,779	2,754	2,784
18 to 24	3,374	3,483	3,622	3,742	3,841	3,651	3,662	3,710
25 and older	2,019	2,234	2,180	2,426	2,427	2,499	2,492	2,699

SOURCE: U.S. Department of Commerce, Bureau of the Census, *School Enrollment—Social and Economic Characteristics of Students: October* (various years) (Current Population Reports, Series P–20), and special tabulations.

The number of men attending college remained generally constant between 1978 and 1985 across all age groups.[7] Women students increased in almost all age groups, with particularly large increases for those 25 and older.

- Indeed, 49.2 percent of the increase in *total* enrollment between 1978 and 1985 came from women 25 or older.

- This increase in the number of women college students, 25 and older, was due both to growth in the number of women in this age group and an increase in the college-going rate for such women.

2-year/4-year (HEGIS) and attendance status (CPS). The growth in total enrollment during the late 1970's and early 1980's was concentrated primarily in 2-year institutions. However, enrollment in such institutions has been declining in recent years.

- Enrollment in two-year institutions increased by 18.5 percent between 1978 and 1982, accounting for two-thirds of the expansion of total (head count) enrollment in that period.

- Since 1982, enrollment in 2-year institutions has decreased 5.1 percent. Since 1983, the decline in 2-year enrollment has accounted for 88.0 percent of the head count enrollment decrease reported by HEGIS.

The proportion of students enrolled part-time remained fairly constant between 1978 and 1985. In 1978, part-time students comprised 29.5 percent of undergraduate students and 35.5 percent of all college students. In 1985, 30.4 percent of undergraduate students and 35.9 percent of all college students were attending part-time.

While the proportion of part-time students has remained unchanged, women now account for a larger share of part-time students than before.

- Women part-time students grew as a proportion of all students—from 16.4 percent of undergraduate students and 31.7 percent of

graduate students in 1978 to 18.4 percent of undergraduate students and 32.7 percent of graduate students in 1985.

- The proportion of men attending part-time actually decreased over the same period.

Implications

Analysts' predictions in the late 1970's of declining college enrollment in the early 1980's proved to be unfounded. Despite a shrinking 18- to 24-year-old population, a continuing increase in the number of older women students and a rise in the college-going rate of 18- to 24-year-olds contributed to a growth in college enrollment during the first half of the 1980's. However, the expansion in enrollment since 1978 may only have postponed an eventual downturn.

Decline is likely to come, but somewhat later and less severe than had been originally predicted. Center for Statistics' projections of future enrollment predict moderate enrollment declines in the future.[8] Overall head count enrollment levels are projected to be only about six percent lower in 1992 than they were in 1985, rather than the drastic decrease earlier predicted by some observers. Since all of the projected decline is in full-time students, full-time-equivalent enrollment could drop faster than total head count enrollment (full-time plus part-time enrollment) (U.S. Department of Education, 1985).

This paper has outlined national trends in enrollment, but the coming enrollment decline will not be evenly distributed across institutional types or across regions of the country. These enrollment declines, although moderate at the national level, could be quite severe within certain types of institutions (Leslie & Conrad, 1985).

- Prestigious institutions with large applicant pools and low-cost community colleges might experience little if any decline, while other types of institutions could suffer considerable enrollment losses.

- Enrollment patterns at individual institutions will be affected by institutional characteristics, such as location, the nature and extent of competition from neighboring and similar institutions, and the types of programs offered.

As Frances (1981) has pointed out, the impact of decline on individual institutions may depend on how those institutions are currently planning for the future.

Nevertheless, overall decline in college enrollment appears likely for several reasons.

- The full impact of the declining population of 18- to 24-year-olds has not yet been felt; the number of persons 18- to 24-years-old will continue to decline through 1996 (U.S. Department of Education, 1985).

- For a variety of reasons, the two factors which sustained enrollments in the early 1980's and which offset the decline in the 18- to 24-year-old applicant pool—increases in the number of women students, especially older women students, and higher participation rates among younger students—may be transitory.

Older women students. As outlined above, part of the increased college enrollment in the 1980's came from increases in the number of women students over 25. However, the phenomenon of large numbers of older female students may be a temporary one. Many of the women who enrolled in higher education in their late 20's and 30's in the early 1980's had chosen not to attend college in the 1970's, when they were the traditional age (18 to 24) to attend college. Enrollment rates for women 18 to 24 in the 1970's were 3 to 5 percentage points lower than they are now.[9] With more young women today choosing to attend college in their early 20's, there should be fewer women in this cohort who have not already attended college by the time they are 25. Attendance rates for older women may consequently decline in the future.

Eighteen- to 24-year-olds. Another major factor contributing to the enrollment increases in the early 1980's was higher enrollment rates for the traditional college-age population than in the 1970's. Those higher rates may not persist in the future.

Historically, college attendance rates for whites have been substantially above those for blacks and Hispanics (U.S. Department of Education, 1986a, indicator 2:9). One reason for lower college attendance rates among blacks and Hispanics is the relatively smaller pools of potential college students due to lower high school graduation rates. For example, in 1984, for those age 18 to 24, the proportions of high school graduates were 10 to 20 percentage points lower for blacks and Hispanics than for

whites. In addition, college-going rates for black and Hispanic high school graduates are lower than those for white high school graduates (Table 2).

The number of both Hispanics and blacks, age 14 to 34, enrolled in college increased between 1978 and 1984—by 39.0 and 11.6 percent respectively, while total enrollment of those 14 to 34 grew by 10.4 percent. During the period, Hispanics increased as a proportion of all college students from 3.8 to 4.8 percent. Since black enrollment grew at approximately the same rate as total enrollment, the proportions of black students, age 14 to 34, in 1978 and 1984 were about the same—10.4 and 10.5 percent respectively (U.S. Department of Commerce, 1985).

In addition, since the number of black and Hispanic students, age 18 to 21, grew at about the same rate as the black and Hispanic population, age 18 to 21, black and Hispanic college-going rates for this age group have remained essentially the same since 1978, around 25 percent for blacks and 23 percent for Hispanics (Department of Commerce, 1985).[10] The increase in enrollment rates for all 18- to 21-year-olds in this period was due to increased participation by whites.

In the future, an increasing share of the college-age population will be comprised of persons from minority groups (Hodgkinson, 1985 and 1986). Whether the changing racial/ethnic composition of the college-age population will result in any decline in enrollment will depend on future enrollment trends for blacks and Hispanics. Recent evidence does not suggest increases in the college-going rates for blacks and Hispanics, despite recent growth in high school graduation rates for these groups (U.S. Department of Commerce, 1985). If current patterns persist, the national college-going rate may decline for all 18- to 24-year-olds, as blacks and Hispanics comprise a larger proportion of that age group.[11]

Table 2

Persons 18- to 24-years-old, by high school graduation status, college enrollment status and race/ethnicity: 1978 to 1984

Race/ethnicity and year	Percent high school graduates	Percent of high school graduates enrolled in college
White		
1984	83.0	33.7
1983	82.2	32.9
1982	82.4	33.1
1981	82.2	32.5
1980	82.6	31.8
1979	82.1	31.2
1978	82.6	31.1
Black		
1984	74.7	27.2
1983	70.9	27.0
1982	70.9	28.0
1981	70.9	28.0
1980	69.7	27.6
1979	67.1	29.5
1978	67.8	29.7
Hispanic[1]		
1984	60.1	29.9
1983	54.8	31.4
1982	57.6	29.2
1981	55.8	29.9
1980	54.1	29.8
1979	55.2	30.2
1978	55.9	27.2

[1] Hispanics may be of any race.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *School Enrollment-Social and Economic Characteristics of Students: October 1984*, 1985.

Footnotes

[1]The estimates of college enrollment reported by HEGIS include all persons currently enrolled in college. CPS estimates of college enrollment exclude all members of the military. HEGIS enrollment counts are generally 100,000 more than CPS.

[2]The Center for Statistics has periodically published HEGIS data disaggregated by age. These estimates are derived by projecting CPS age distributions on HEGIS enrollment figures. HEGIS does not directly collect age data.

[3]Some analysts at the time, anticipating an increase in the enrollment of older students, predicted no such decline in overall enrollment (Bowen, 1980). Furthermore, some of the projections (the intermediate and high alternative projections) by the National Center for Education Statistics in 1980 (U.S. Department of Education, 1980) predicted a continued increase in college enrollment in the early 1980's and decrease after 1983.

[4]While CPS and HEGIS enrollment estimates are consistent in showing enrollment decline in 1984 and an increase in 1985, none of the enrollment changes recorded in CPS between 1983 and 1985 are statistically significant.

[5]College or higher education enrollment, as defined in this report, includes persons attending a 4-year or 2-year college, university or professional school (such as medical or law school), in courses that may advance the student toward a recognized college or university degree. Attendance may be either full-time or part-time, undergraduate or graduate.

[6]College enrollment rates are computed as the ratio of persons enrolled in college (either full-time or part-time) to the number of persons in the civilian (non-institutional) population. Thus, the college enrollment rate for a particular age group can be altered by a change in either the numerator or the denominator. For example, if the number of college-age men who enter the Armed Forces declines, the denominator (the number of civilians) of the fraction would increase and the college enrollment rate would decrease. Participation rates reported here are based on the civilian (non-institutional) population.

[7]Overall the number of men aged 14 and older enrolled in college significantly increased between 1978 and 1985. However, none of the increases within age groups were statistically significant.

[8]The discussion of projected enrollment is based on actual enrollment through 1982 and projected enrollment (under the CS intermediate alternative) from 1983 to 1992. The projections are based on 1982 data. CS staff are currently preparing new projections based on 1985. The data are:

	Enrollment (In thousands)		
Year	FTE	Full-time	Part-time
1970	6,737	5,815	2,766
1971	7,148	6,078	2,871
1972	7,254	6,072	3,143
1973	7,454	6,189	3,413
1974	7,806	6,370	3,854
1975	8,481	6,841	4,343
1976	8,313	6,717	4,295
1977	8,414	6,792	4,492
1978	8,336	6,667	4,593
1979	8,488	6,794	4,776
1980	8,749	7,098	4,999
1981	9,012	7,181	5,190
1982	9,092	7,221	5,205
	Projected		
1983	8,954	7,066	5,311
1984	8,852	6,936	5,389
1985	8,730	6,790	5,457
1986	8,607	6,645	5,517
1987	8,547	6,566	5,570
1988	8,533	6,541	5,600
1989	8,530	6,524	5,637
1990	8,446	6,430	5,663
1991	8,326	6,303	5,686
1992	8,166	6,152	5,658

SOURCE: U.S. Department of Education, *Projections of Education Statistics to 1992-93*, 1985.

[9]Peng and Fetters (1978) showed that female enrollment rates actually decreased during the period 1961 to 1972.

[10]Not only do minorities (with the exception of Asians) have lower enrollment rates, they also have higher attrition rates (Carroll, 1985).

[11]However, the trends at subnational levels—regions, States, and individual institutions—may be quite different, depending upon the racial/ethnic composition of the applicant pool. In States with stable proportions of blacks and Hispanics, recent increases in the high school graduation rates for blacks and Hispanics may *increase* the college going-rates for some younger age groups.

Appendix

Reliability of estimates

All comparisons cited in the text are statistically significant at the 0.05 level of significance. This means that the difference between two sample estimates is greater than 1.96 times the standard error of the difference.

Table A1

Standard errors for Table 1: College enrollment and total population by age category: 1978 to 1985

Age and sex	1978	1979	1980	1981	1982	1983	1984	1985
	(In thousands)							
Population								
18 to 21	162	164	176	176	175	172	170	168
18 to 24	192	195	209	209	209	208	207	205
25 and older	789	824	898	912	928	928	944	958
College enrollment								
Both sexes								
14 and older	139	141	151	155	156	156	156	157
18 to 21	99	99	108	110	110	108	109	109
18 to 24	114	114	123	126	127	125	126	126
25 and older	86	88	93	97	98	100	99	101
Male								
14 and older	102	102	100	112	113	114	113	113
18 to 21	71	70	77	78	78	77	78	78
18 to 24	83	82	89	92	92	92	93	92
25 and older	60	60	63	65	66	68	67	68
Female								
14 and older	102	105	113	116	117	116	116	119
18 to 21	71	72	78	80	80	79	78	79
18 to 24	81	82	89	91	92	90	90	91
25 and older	63	66	70	74	74	75	75	70

SOURCE: U.S. Department of Commerce, Bureau of the Census, *School Enrollment—Social and Economic Characteristics of Students: October (various years)* (Current Population Reports, Series P-20), and special tabulations.

Table A2

Standard errors for Table 2: Persons 18- to 24-years-old, by high school graduation status, college enrollment status and race/ethnicity: 1978 to 1985

Race/ethnicity and year	All persons	Percent high school graduates	Percent of high school graduates enrolled in college
White			
1984	23,347	0.4	0.4
1983	23,899	0.4	0.4
1982	24,206	0.4	0.4
1981	24,486	0.4	0.4
1980	24,482	0.4	0.4
1979	23,895	0.4	0.4
1978	23,650	0.4	0.4
Black			
1984	3,862	1.1	1.0
1983	3,865	1.2	1.0
1982	3,872	1.2	1.0
1981	3,778	1.2	1.0
1980	3,721	1.2	1.0
1979	3,510	1.2	1.1
1978	3,452	1.2	1.1
Hispanic[1]			
1984	2,018	1.6	1.2
1983	2,025	1.6	1.2
1982	2,001	1.6	1.2
1981	2,052	1.6	1.2
1980	2,033	1.6	1.2
1979	1,754	1.8	1.3
1978	1,672	1.8	1.3

[1] Hispanics may be of any race.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *School Enrollment-Social and Economic Characteristics of Students: October 1984*, 1985.

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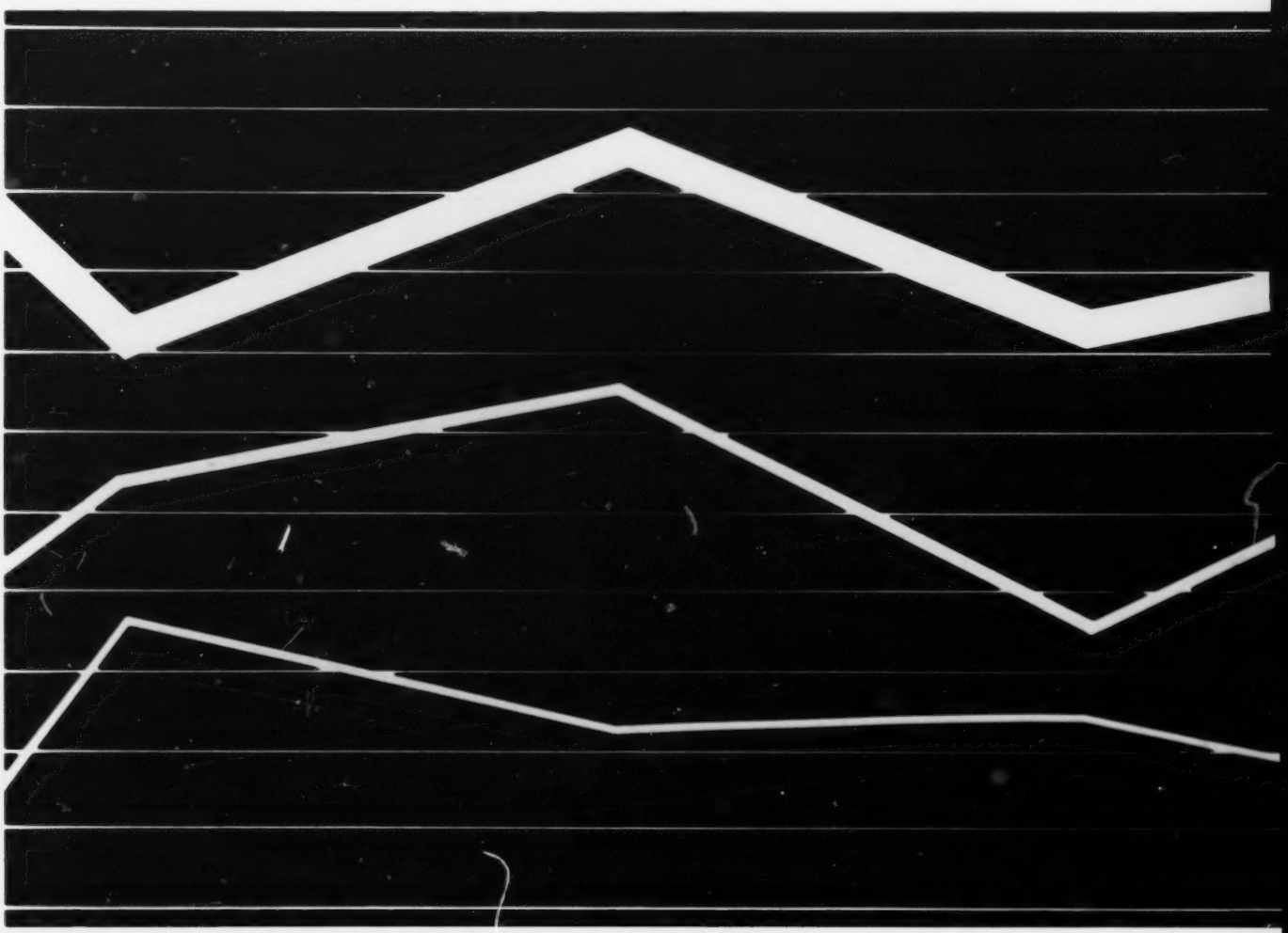

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